

Rumrill, Nancy

From: David Peterson (b)(6)/Privacy Act
Sent: Tuesday, February 27, 2018 3:26 PM
To: Rumrill, Nancy
Subject: RE: Supplemental comments regarding Gunnison Copper Project Class III Draft Underground Injection Control Permit

Dear Ms. Rumrill,

I wish to comment on the Draft Class III Underground Injection Control Permit (UIC) for Excelsior Mining's Gunnison Copper Project located in Cochise County, Arizona.

This project uses a mining method called in-situ mining to mine copper. This method, by definition, intentionally pollutes groundwater. Excelsior plans to drill 1,400 wells up to 1,400 feet deep and to inject over 7 million gallons of acid per day directly into an aquifer of drinking water quality. This acid would leach copper and toxic minerals from underground rock, and would then be pumped to the surface for processing, in which the copper would be extracted from the water. There is nothing said about what would happen to the toxic wastewater.

To date, there are no commercial in-situ projects at greenfields sites anywhere in the United States. In-situ mining has been used to mine uranium, but so far no in-situ mine has returned groundwater to pre-mining conditions. I am concerned that groundwater in the Dagoon area could be permanently polluted and unavailable for use by families and businesses.

I am very concerned because Arizona is currently experiencing a severe drought with no signs of abatement, and every drop of groundwater is precious. The EPA must exercise extreme caution in permitting any activity with the potential of contaminating groundwater - especially since this project would use an untested technology for copper production and is proposed by a new mining company that has never attempted this type of mining.

Conceptual flow models of the project area and surrounding area indicate that existing water wells could be permanently compromised. Some studies have suggested that groundwater quality continues to decline even after post-mining groundwater rinsing has been completed.

The Environmental Protection Agency's draft UIC permit is inadequate to effectively detect potential pollution because there are not enough monitoring wells, and there is not sufficient modelling to best determine their placement. The EPA must increase the number of required outer monitoring wells from five to at least 25, and require that these wells be drilled over a broad area extending further from the project site. Additional monitoring wells should be placed where contaminants would be most likely to migrate based on additional modelling. The monitoring schedule for these wells is inadequate. All monitoring wells should be drilled at least one year prior to commercial operation, and extensive baseline water quality data should be collected by a third-party laboratory for all of them and be made publicly available. Baseline data should include every known constituent of concern that could degrade groundwater quality in any way.

Excelsior (the mining company) and the EPA must demonstrate that they are committed to the preservation of baseline water quality. If pollution is found in the monitoring wells, Excelsior must cease all injection operations immediately until the problem is fixed.

The EPA has not yet completed a Cumulative Impacts Analysis. This analysis must be completed and incorporated into a revised/supplemental draft UIC.

The draft permit allows water quality parameters to be determined after the issuance of a final permit. These parameters must be determined before the issuance of a final permit and must be subject to public comment.

In light of the prevalence of uranium and other radioactive chemicals associated with Arizona copper deposits, the list of radioactive chemicals and elements sampled in monitoring wells should be expanded.

The historic preservation review process for this permit is inadequate and needs to be redone before a final permit may be granted. This review should include cultural and archeological surveys at a minimum. The assessment should also give attention to the landscape scale, indirect, and cumulative effects to the well-known historic property complexes in the immediate vicinity.

I have grave concerns about the granting of an Aquifer exemption for this project. If the EPA grants this exemption, a current and future source of drinking water would be permanently compromised.

Due to the lack of explanation as to the origin of the EPA's interpretation of critical regulatory terms, the lack of a cumulative impacts analysis as required, and the issues raised in my comments, the draft UIC package is incomplete. A revised/supplemental draft UIC permit must be completed and re-noticed for at least a 90-day public comment period.

Sincerely,

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